



# UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VII  
901 NORTH 5TH STREET  
KANSAS CITY, KANSAS 66101

19 DEC 2007

Chief, Rules and Directives Branch  
U.S. Nuclear Regulatory Commission  
Mailstop T6-D59  
Washington, D.C. 20555-0001

To Whom It May Concern:

RE: Wolf Creek Generation Station License Renewal, Coffey County, Kansas  
NUREG-1437, Supplement 32, Draft Report for Comment

The Environmental Protection Agency has reviewed the draft Supplemental Environmental Impact Statement for the Wolf Creek Nuclear Generating Station License Renewal Project in Coffey County, Kansas. Our review is provided pursuant to the National Environmental Policy Act 42 U.S.C. 4231, Council on Environmental Quality regulations 40 C.F.R. Parts 1500-1508, and Section 309 of the Clean Air Act. The SEIS was assigned the Council on Environmental Quality number 20070404.

Based on our overall review and the level of our comments, the EPA has rated the draft Supplemental Environmental Impact Statement for this project EC-2 (Environmental Concerns - Insufficient Information). A copy of EPA's rating descriptions is provided as an enclosure to this letter.

This EC-2 rating is based on the uncertainty of potential impacts to terrestrial and aquatic species associated with the increasing concentration of tritium in Coffey County Lake and the related potential contamination of groundwater from infiltration and unintended releases of tritium, such as those due to equipment degradation.

## Tritium Concentrations in Coffey County Lake

In general, the EIS fails to evaluate potential risk to both terrestrial and aquatic receptors that are exposed to radionuclides from operation of the plant. Of primary concern is tritium, which has been found to be increasing steadily in surface water and fish tissue in Coffey County Lake. The SEIS should include a conceptual model of tritium behavior in the environment, along with ecological toxicity reference values describing potential effects to both aquatic and terrestrial receptors. In summary, although tritium is monitored, the draft has not identified a threshold where tritium concentrations would exert a negative impact upon the aquatic life in Coffey County Lake.

Table 2-3 and 2-4, Surface Water Quality Monitoring - A list of the analytes included as Gamma Isotopes should be included in the SEIS along with their detection limits. Further, text

should be included in the SEIS that explains the rationale behind monitoring these particular analytes.

Section 2.2.5.2.2, Radionuclide Concentrations in Tissue Samples – The draft stated that the fish tissue analysis was conducted on the edible portions of the fish. To evaluate potential ecological risk to fish and piscivores due to radionuclide exposure, whole fish tissue samples should be processed.

Section 2.2.7, Radiological Impacts - Activation, corrosion, or fission products attributable to plant operation have been detected in surface water, fish tissue, and bottom sediments of Coffey County Lake. However, ecological benchmarks for those materials have not been presented as part of the SEIS, making it impossible to determine the impacts of these plant related contaminants on the aquatic life of Coffey County Lake or the piscivorous organisms that may be consuming organisms from the lake. Further, given the accumulation of tritium in surface water and fish tissue over time, an ecological risk assessment that is specific for tritium should be included as part of the SEIS to predict levels that may become harmful to fish and their predators.

#### Potential Ground Water Contamination

Recent events at several nuclear power plants have highlighted a concern with tritium contamination of groundwater as a result of unplanned releases, such as those due to equipment degradation. Since the concentrations of tritium in the Coffey County Lake are expected to increase marginally and infiltration through seepage from the lake to groundwater is not well known, we request that further characterization be conducted as discussed in Section 2.2.3.2 Groundwater, page 2-39, line 17. The results of the study should be included in the Final SEIS.

In addition to the above comments, we recognize that no “new and significant information” was identified during the review process for the license renewal related to the uranium fuel cycle and transportation of nuclear fuel and wastes and that these issues are documented in the *Generic Environmental Impact Statement for License Renewal of Nuclear Plants* (GEIS), NUREG-1437, Volumes 1 and 2. However we recommend including a discussion of environmental effects related to potential onsite spent fuel storage if onsite storage would be foreseeable during the license renewal time frame.

We appreciate the opportunity to provide comments regarding this project and your DEIS. If you have any questions or concerns, please contact Kim Johnson at (913) 551-7975.

Sincerely,



Cheryl Crisler  
Acting Director

Environmental Services Division

Enclosure

## **Draft Environmental Impact Statement Rating Definitions**

### **Environmental Impact of the Action**

#### **"LO" (Lack of Objections)**

The EPA review has not identified any potential environmental impacts requiring substantive changes to the proposal. The review may have opportunities for application of mitigation measures that could be accomplished with no more than minor changes to the proposal.

#### **"EC" (Environmental Concerns)**

The EPA review has identified environmental impacts that should be avoided in order to fully protect the environment. Corrective measures require changes to the preferred alternative or application of mitigation measures that can reduce the environmental impact. EPA would like to work with the lead agency to reduce these impacts.

#### **"EO" (Environmental Objections)**

The EPA review has identified significant environmental impacts that must be avoided in order to provide adequate protection for the environment. Corrective measures may require substantial changes to the preferred alternative or consideration of some other project alternative (including the no action alternative or a new alternative. EPA intends to work with the lead agency to reduce these impacts.

#### **"EU" (Environmentally Unsatisfactory)**

The EPA review has identified adverse environmental impacts that are of sufficient magnitude that they are unsatisfactory from the standpoint of public health or welfare or environmental quality. EPA intends to work with the lead agency to reduce these impacts. If the potentially unsatisfactory impacts are not corrected at the final EIS stage, this proposal will be recommended for referral to the CEQ.

### **Adequacy of the Impact Statement**

#### **"Category 1" (Adequate)**

EPA believes the draft EIS adequately sets forth the environmental impact(s) of the preferred alternative and those of the alternatives reasonably available to the project or action. No further analysis or data collection is necessary, but the reviewer may suggest the addition of clarifying language or information.

"Category 2" (Insufficient Information)

The draft EIS does not contain sufficient information for EPA to fully assess environmental impacts that should be avoided in order to fully protect the environment, or the EPA reviewer has identified new reasonably available alternatives that are within the spectrum of alternatives analyzed in the draft EIS, which could reduce the environmental impacts of the action. The identified additional information, data, analyses, or discussion should be included in the final EIS.

"Category 3" (Inadequate)

EPA does not believe that the draft EIS adequately assesses potentially significant environmental impacts of the action, or the EPA reviewer has identified new, reasonably available alternatives that are outside of the spectrum of alternatives analyzed in the draft EIS, which should be analyzed in order to reduce the potentially significant environmental impacts. EPA believes that the identified additional information, data, analyses, or discussions are of such a magnitude that they should have full public review at a draft stage. EPA does not believe that the draft EIS is adequate for the purposes of the NEPA and/or Section 309 review, and thus should be formally revised and made available for public comment in a supplemental or revised draft EIS. On the basis of the potential significant impacts involved, this proposal could be a candidate for referral to the CEQ.